First "Draft"
Comments Welcome

Skill Biased Technological Change and The Labor Market: Some Problems and Puzzles

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Table 1: Use of Computers at Work

	1984	1989	1993	1997
All Workers	24.5	36.8	46.0	49.9
By Education:				
Dropouts	4.8	7.4	8.9	11.3
High School	19.8	29.2	34.0	36.1
Some College	31.9	46.4	53.5	56.3
College (or more)	41.5	57.9	69.1	75.2
High School/College (%)	47.7	50.5	49.1	48.1
By Gender:				
Men	21.1	31.6	40.3	44.1
Women	29.0	43.2	52.7	56.7
Male/Female (%)	73.0	73.2	76.5	77.8
By Gender and Education:				
High School Men	12.9	20.1	24.1	26.8
College Men	42.7	58.8	70.5	75.5
High School Women	27.5	39.2	45.1	46.8
College Women	39.6	56.6	67.4	74.7
High School/College (Men)	30.2	34.2	34.2	35.5
High School/College (Women)	69.4	69.3	66.9	62.7
Male/Female (High School)	46.9	51.3	53.4	58.3
Male/Female (College)	107.8	103.9	104.5	101.1
By Race:				
Whites	25.3	37.9	47.3	51.3
Blacks	18.2	27.2	36.2	39.9
Other	23.7	36.0	42.3	48.2
Black/White (%)	72.1	71.7	76.7	77.7
By Age:				
Under 30	24.7	34.9	41.4	44.5
30-39	29.5	42.0	50.5	53.8
40-49	24.6	40.6	51.3	54.9
50 and older	17.6	27.6	38.6	45.3

Notes: Entries display percentage of employed individuals who answer that they “directly use a computer at work” in the October Current Population Survey Computer Use Supplements. Samples include all workers with at least 1 year of potential experience. College workers include those with a college degree or higher education. All tabulations are weighted by CPS sample weights.

Table 2: Summary of Predictions of SBTC for Dimensions of Wage Inequality

Wage Structure Feature	Universe or Relevant Time Period	Prediction from Computer Use/Skill Complementarity View	Prediction from Rising Skill Price View	What happened?
Overall Inequality:				
By Decade	1970s	?	?	Little Change
	1980s	Increase	Increase	Large Increase
	1990s	Increase	Increase	Little Change
Full-time/full-year men versus all workers	1980-2000	?	Larger for All	Larger for FTFY
Between Group Differences:				
By Education:				
College/High School (All Workers)	1980s	Increase	Increase	Large Increase
	1990s	Increase	Increase	Little Increase
College/High School by Age				
Younger Workers	1980s onward	Increase	Increase	Increase
Older Workers	1980s onward	Increase	Increase	Little Increase
Science versus Humanities BS/BA Degree Holders	1980s	Increase	Increase	Decrease
Other Differentials:				
Male/Female	All	Decrease	Increase	Decrease
	Highly Educated (college plus)	Increase	Increase	Decrease
	Less Educated	Decrease	Increase	Decrease
White/Nonwhite	All	Increase	Increase	Little Change
High/Low Experience	Men	Small Decrease	Increase	No Change for lower education. Decrease for higher education
	Women	Little Change	Increase	Increase
Inter-industry	1990 vs 1980	?	Expand	Little Change

Note: see text for explanation. A question mark denotes the possibility that the relevant theory does not provide a clear prediction.

Figure 1: Measures of Technological Change

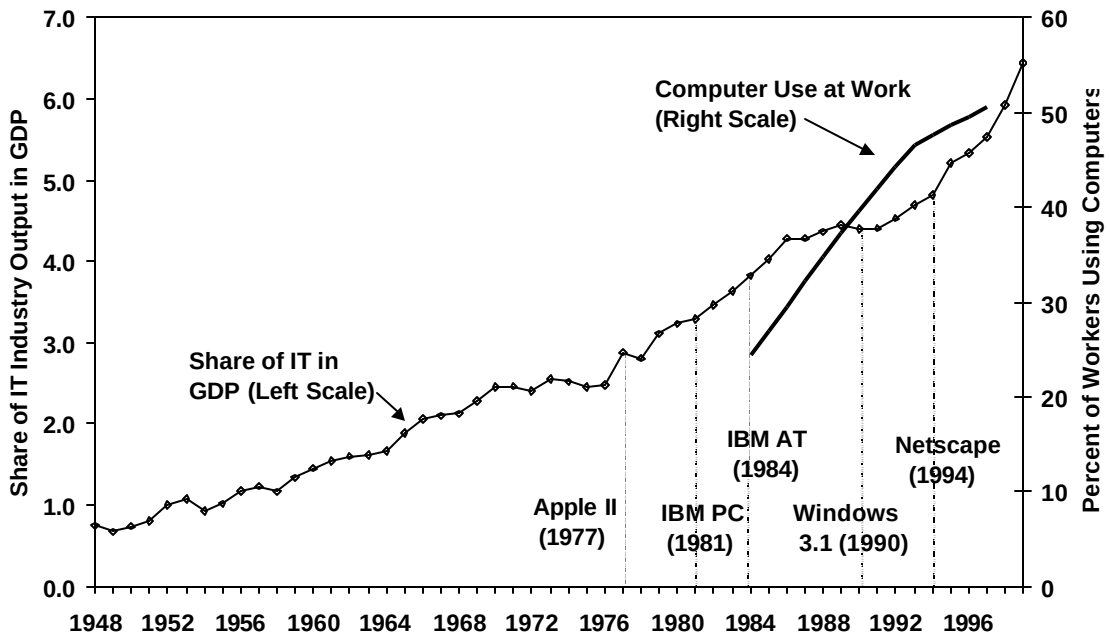


Figure 2: Alternative Measures of Aggregate Wage Inequality

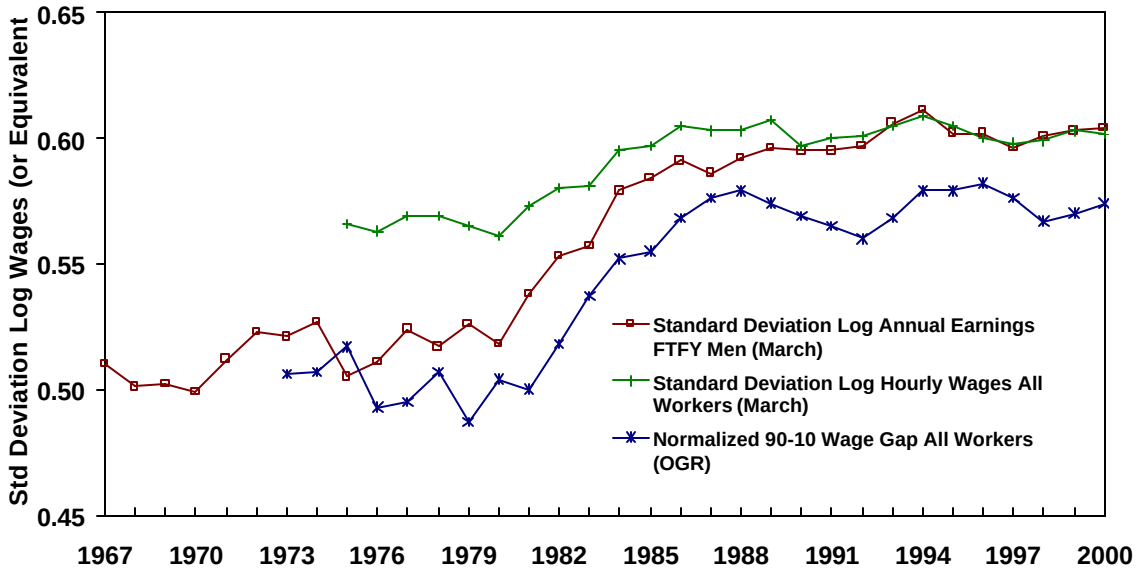


Figure 3: Alternative Measures of Wage Inequality for Male Workers

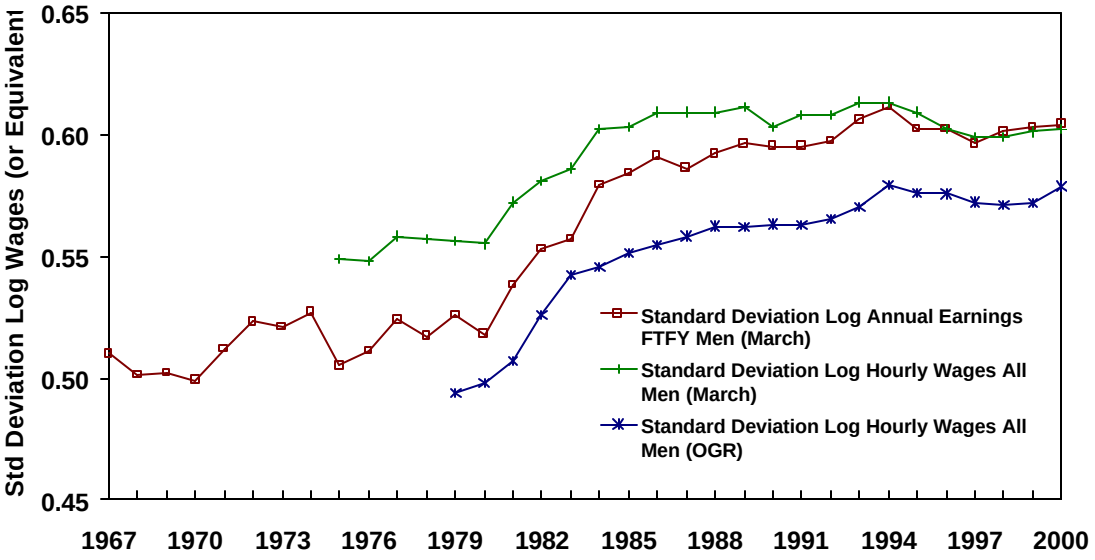


Figure 4: Alternative Measures of Wage Inequality for Female Workers

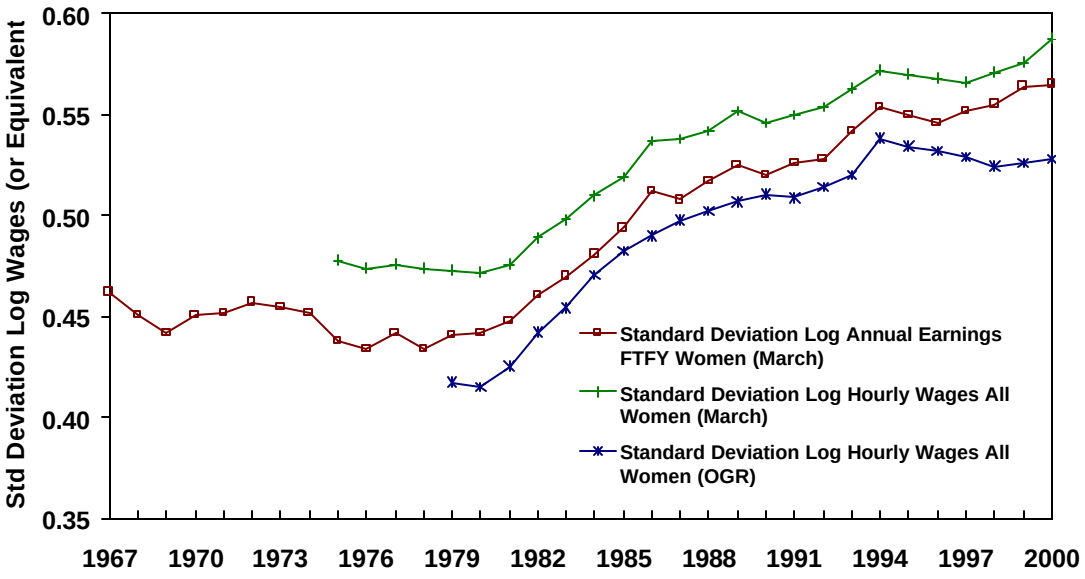


Figure 5: High School-College Wage Ratio by Gender, 1975-99

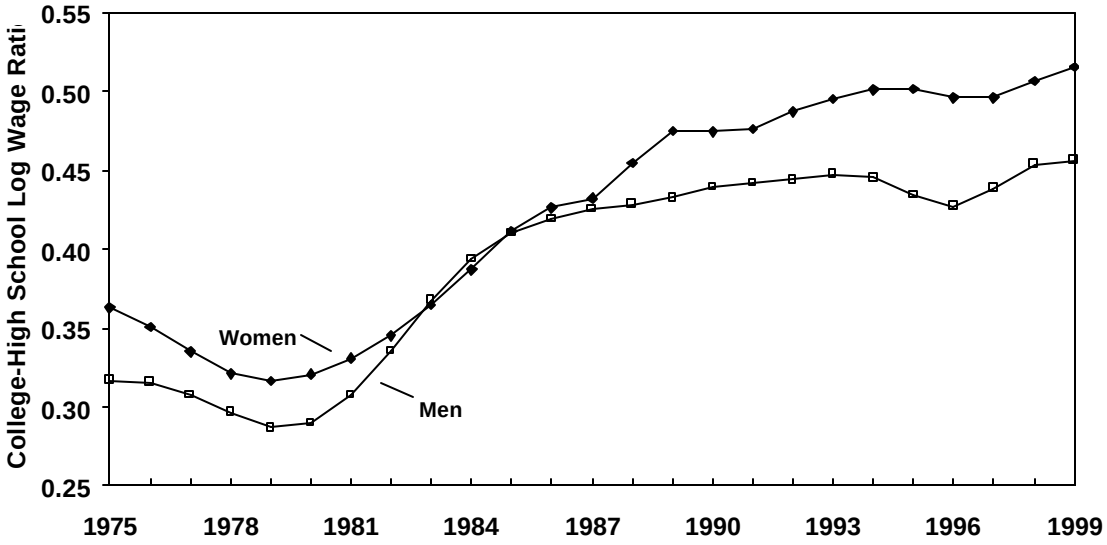


Figure 6: Relative Supply of College Educated Labor

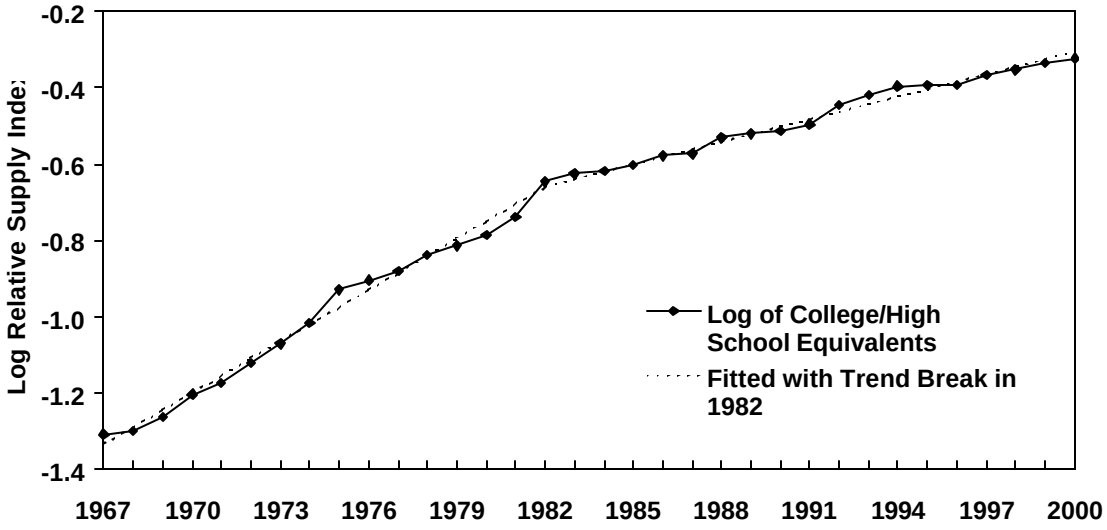


Figure 7a: College-High School Wage Ratio for Men by Age Group

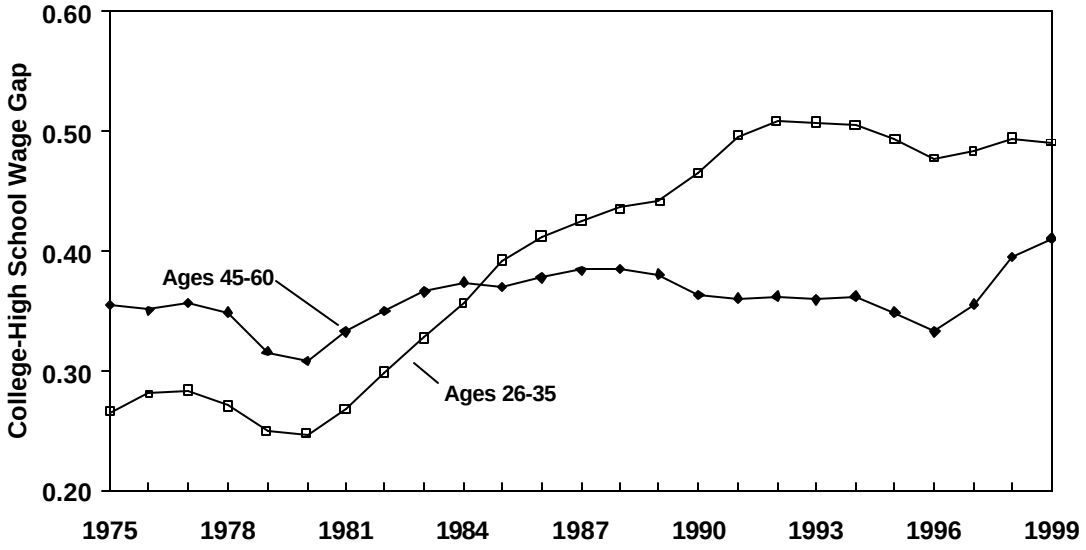


Figure 7b: College-High School Wage Ratio of Women by Age Group

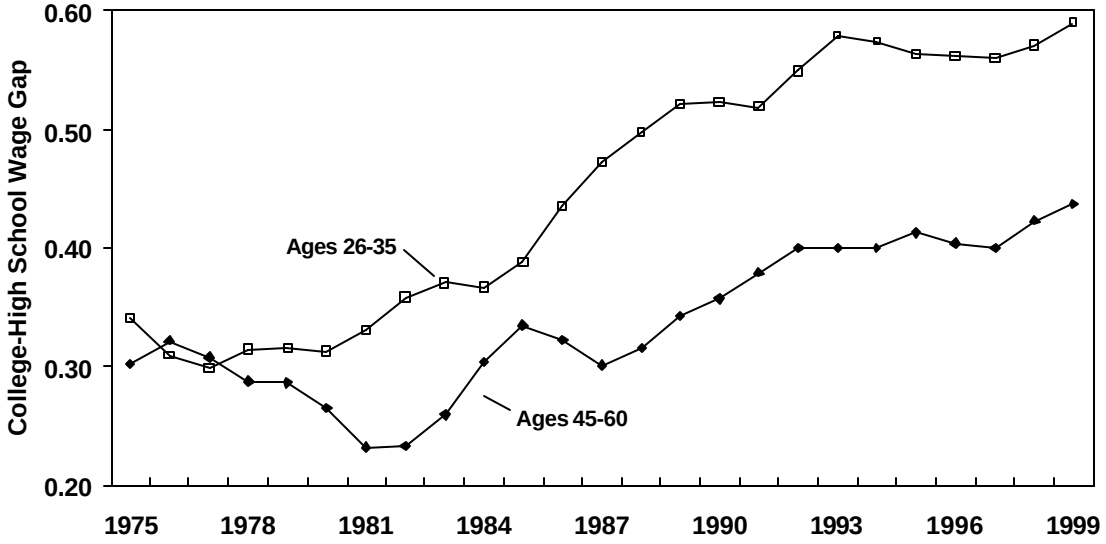


Figure 8: Changing Age Structure of the College-High School Wage Gap

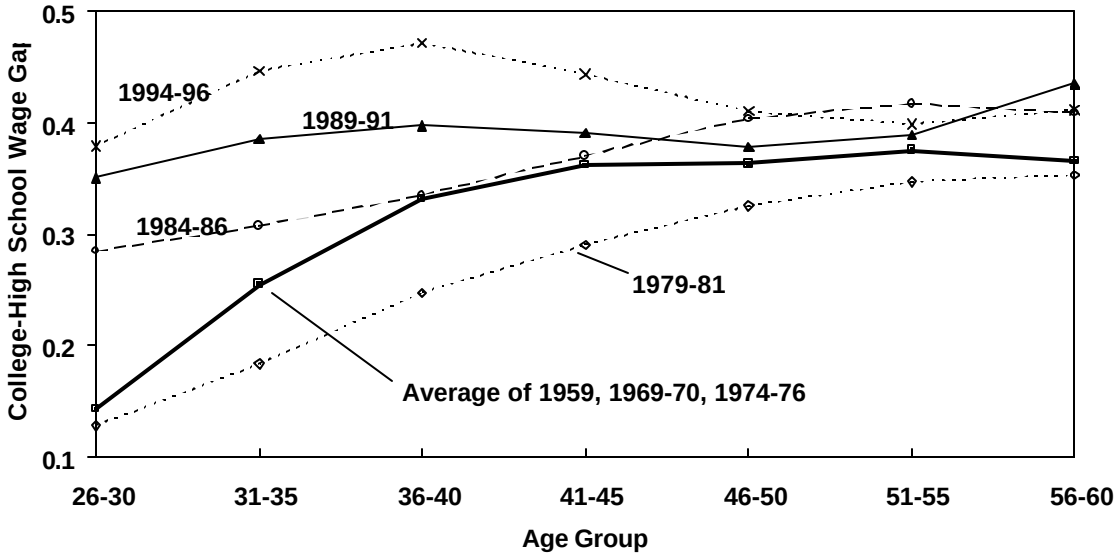


Figure 9: Mean Salary Offer Relative to Humanities/Social Sciences

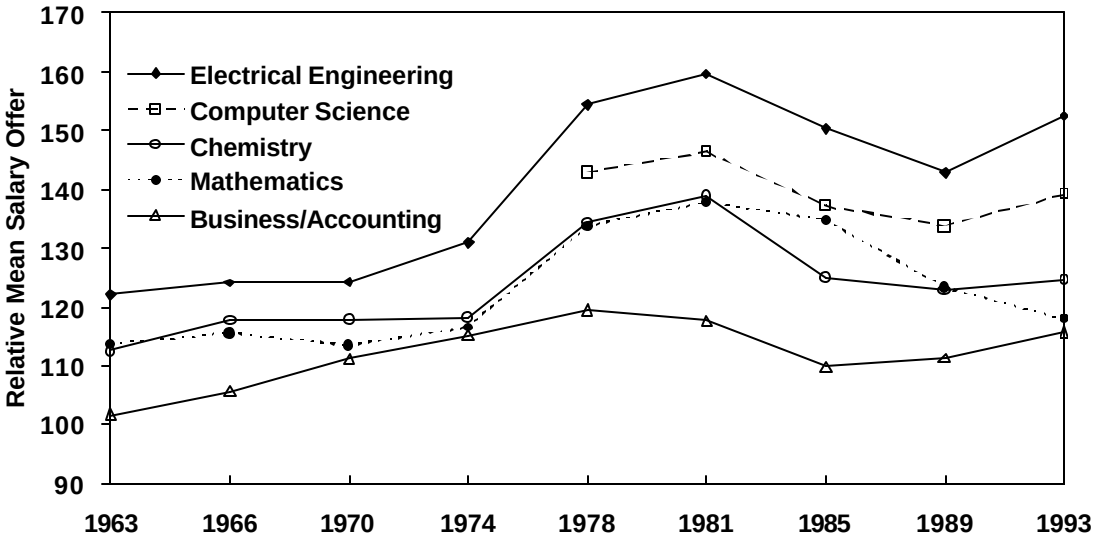


Figure 10: First Year Salaries Relative to Humanities/Social Sciences

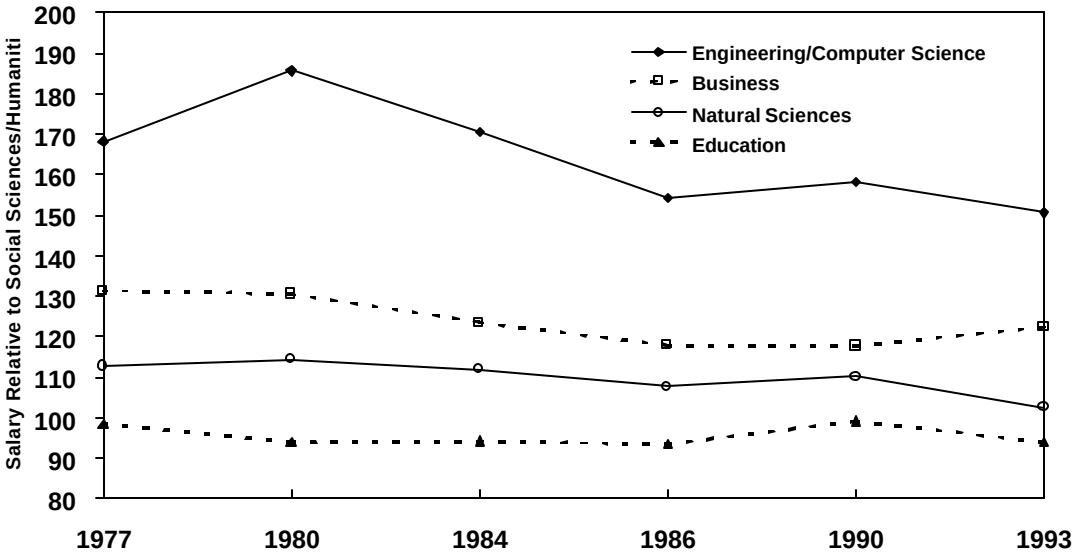


Figure 11: Male - Female Wage Gaps

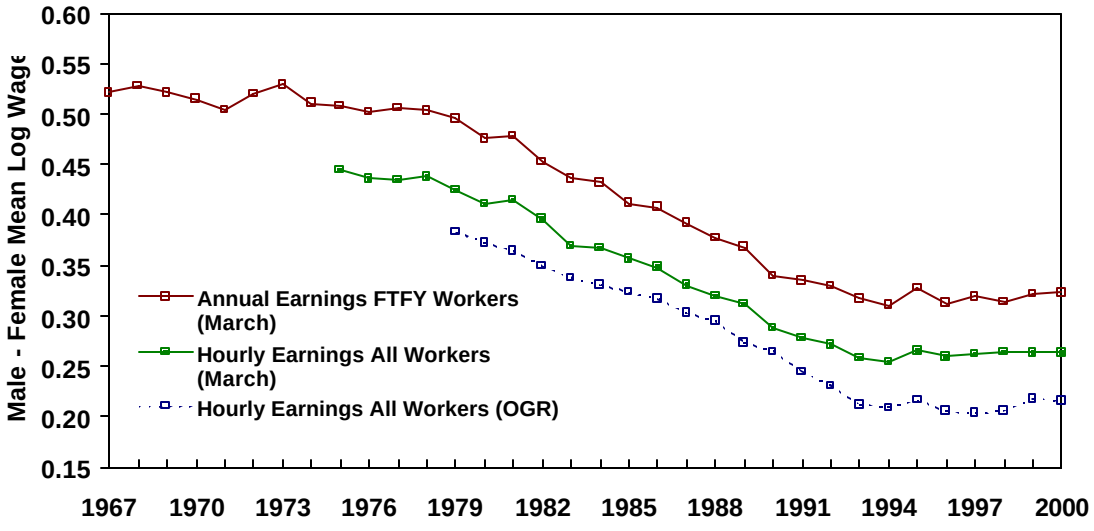


Figure 12: Male-Female Wage Gaps by Age and Education

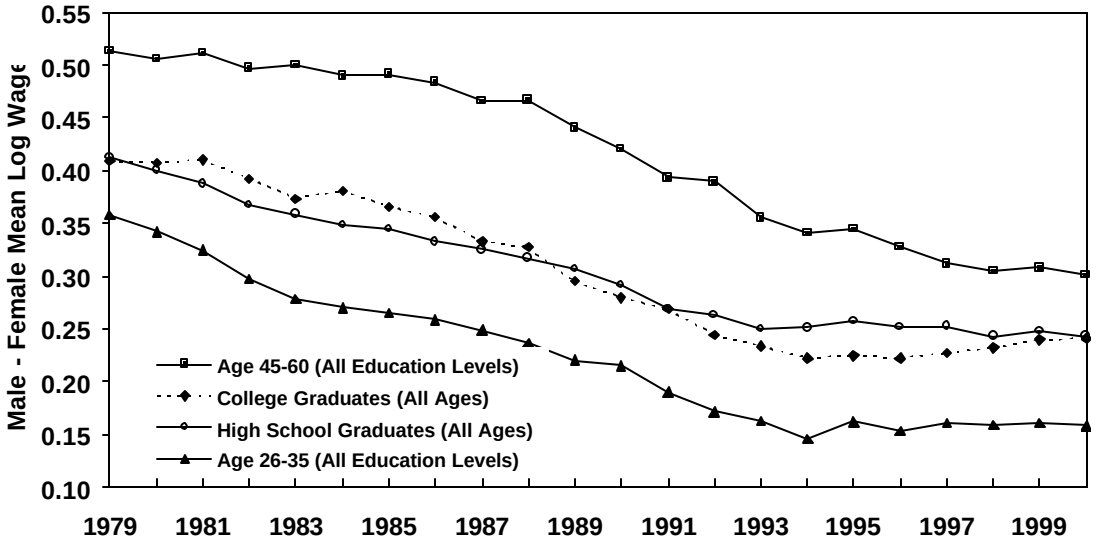


Figure 13: White-Black Wage Gaps

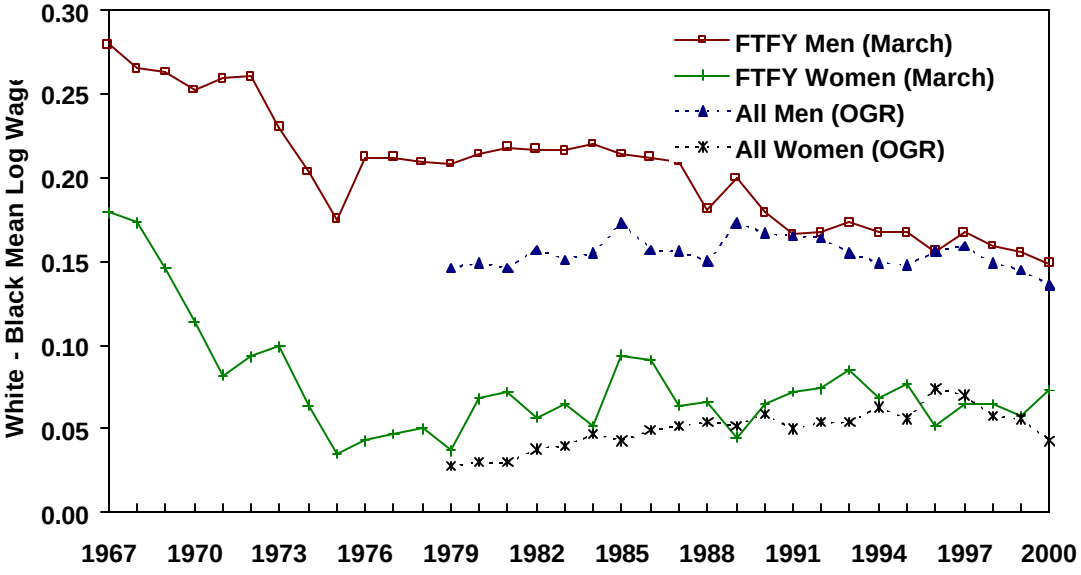


Figure 14: Wage Profiles for Men With 12 Years of Education

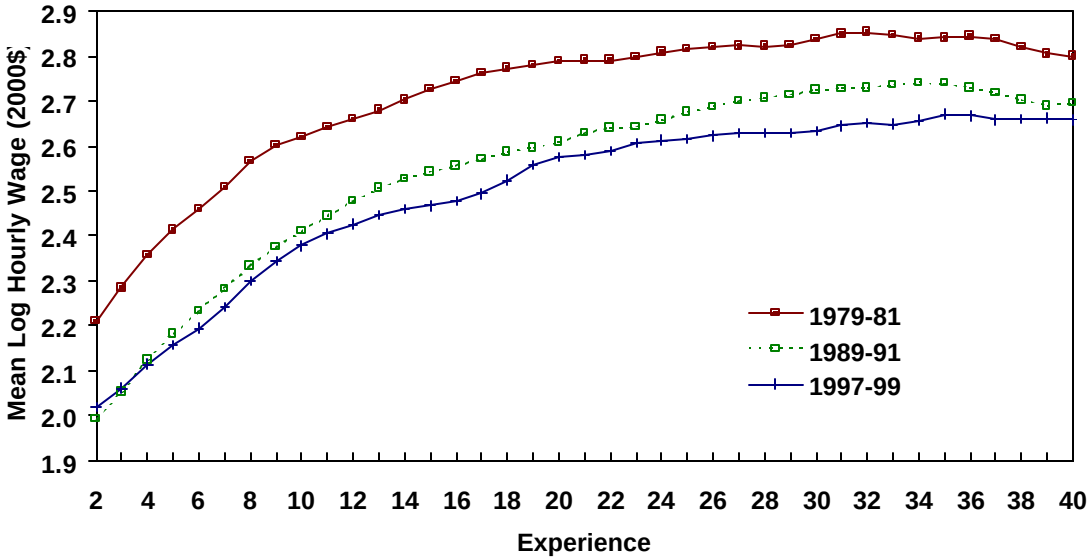


Figure 15: Wage Profiles for Men With 16 Years of Education

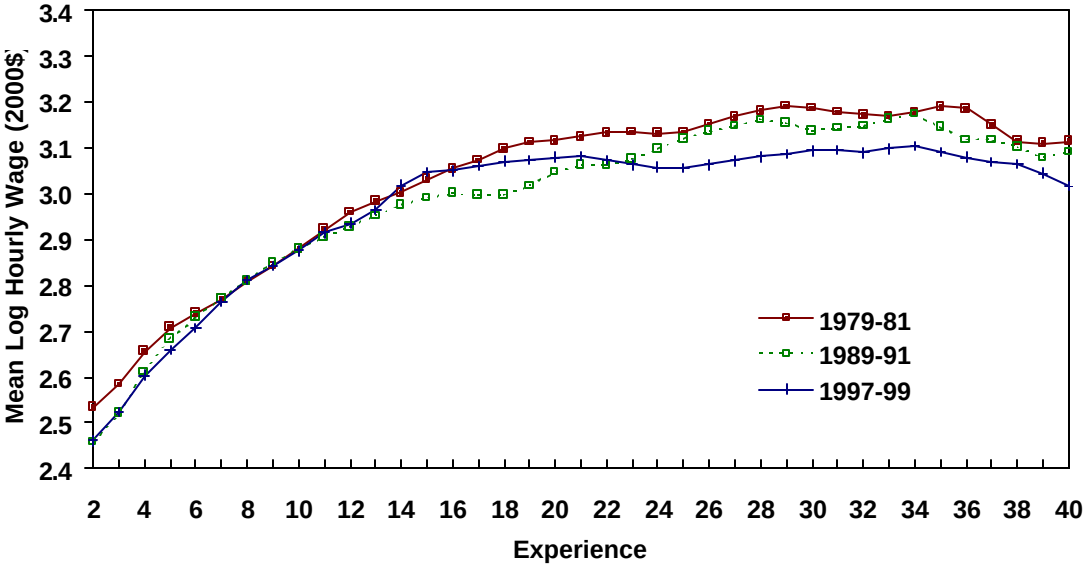


Figure 16: Wage Profiles for Women With 12 Years of Education

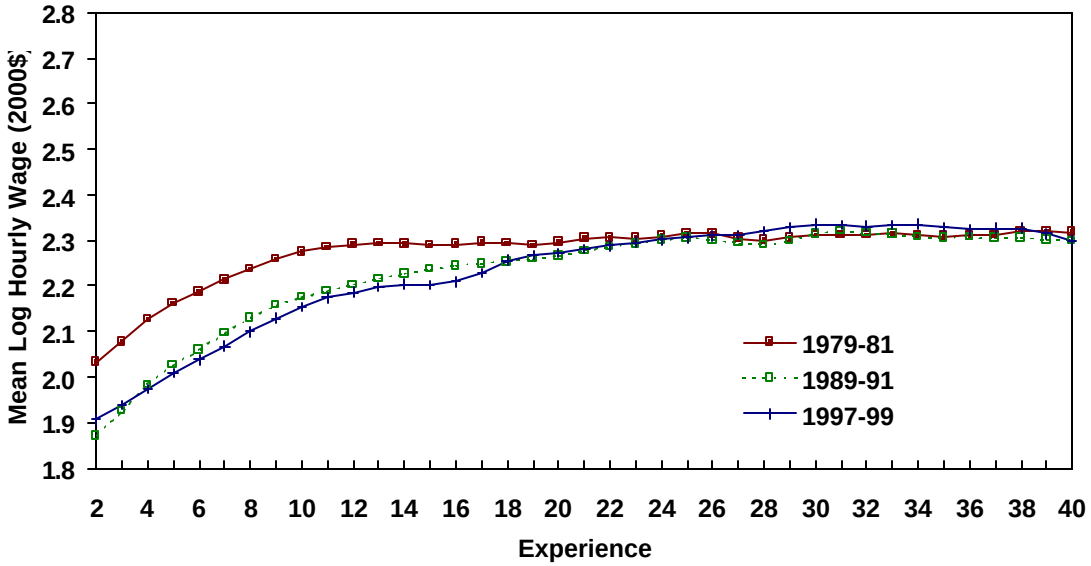


Figure 17: Wage Profiles for Women With 16 Years of Education

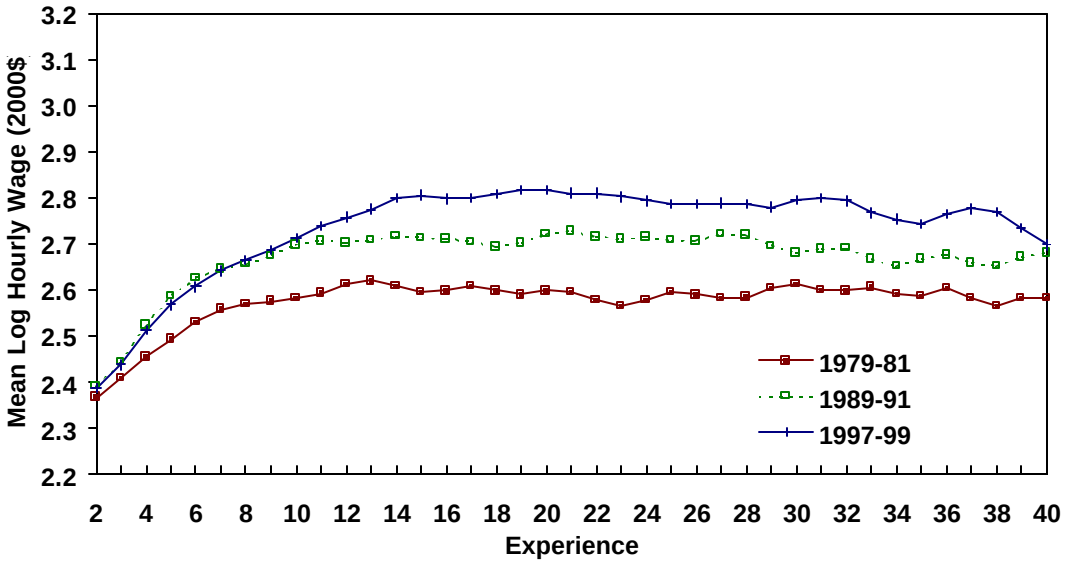


Figure 18: Overall and Residual Wage Inequality for Male Workers

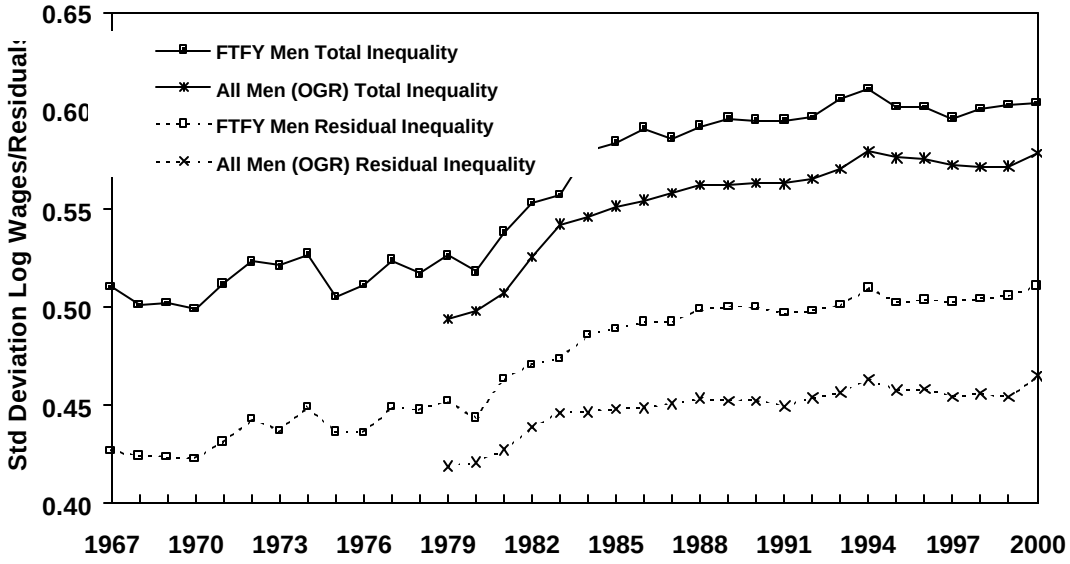


Figure 19: Overall and Residual Wage Inequality for Female Workers

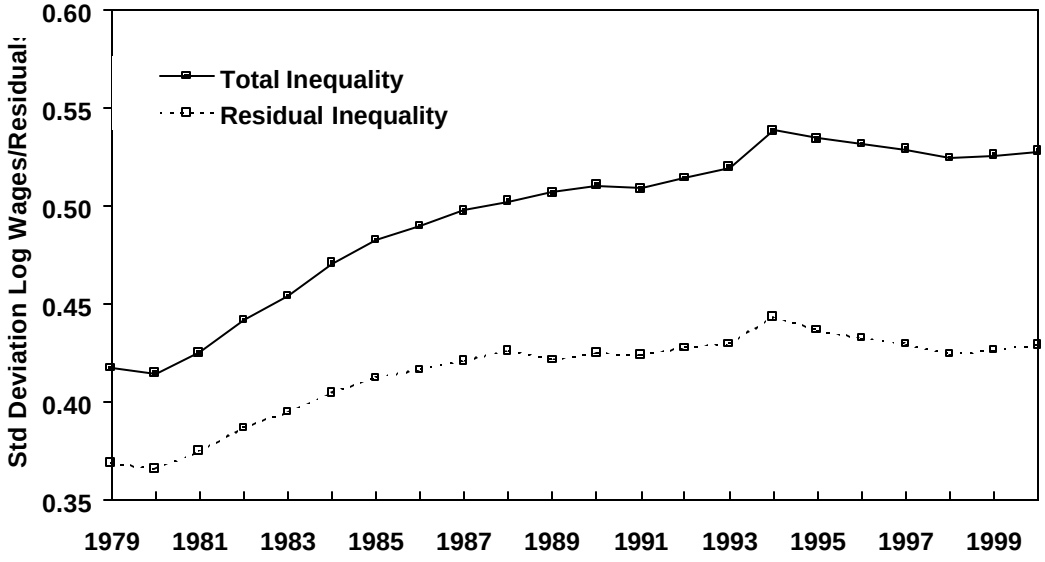


Figure 20: Industry Wage Differentials in 1989 Versus 1979

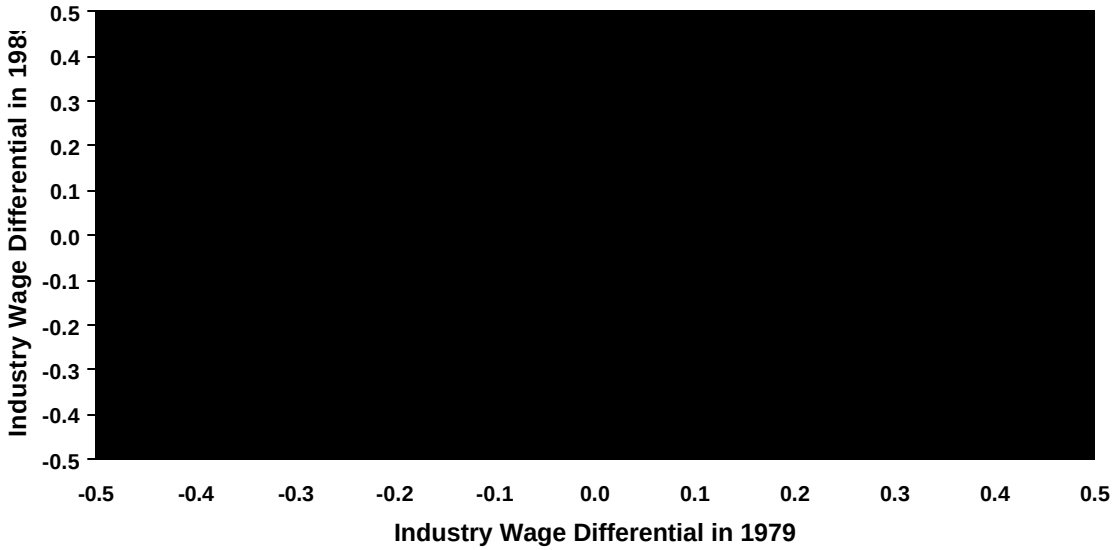


Figure 21: Trends in Productivity Per Hour (Nonfarm Business Sector)

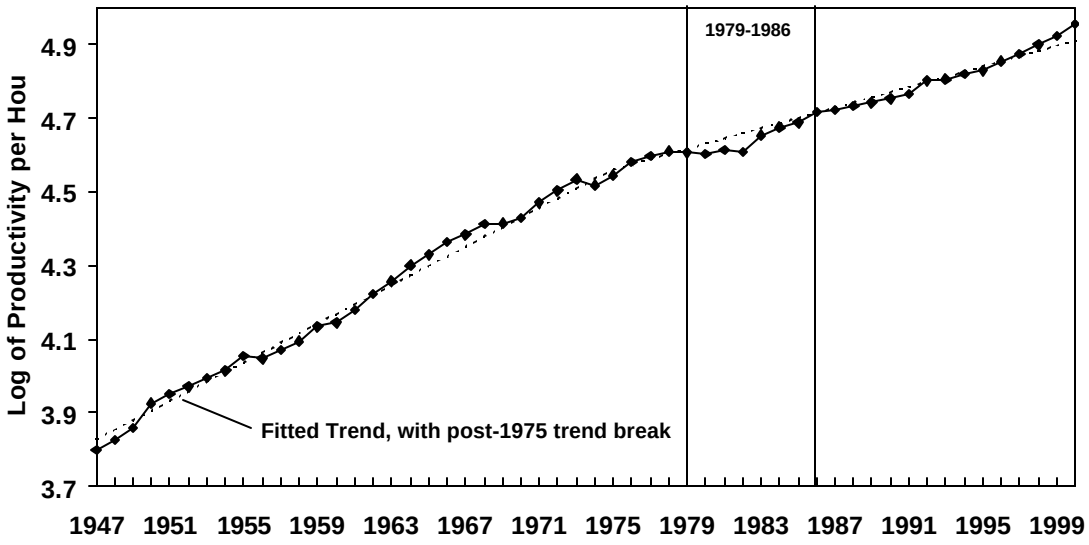


Figure 22: Real Minimum Wage, 1973-2000

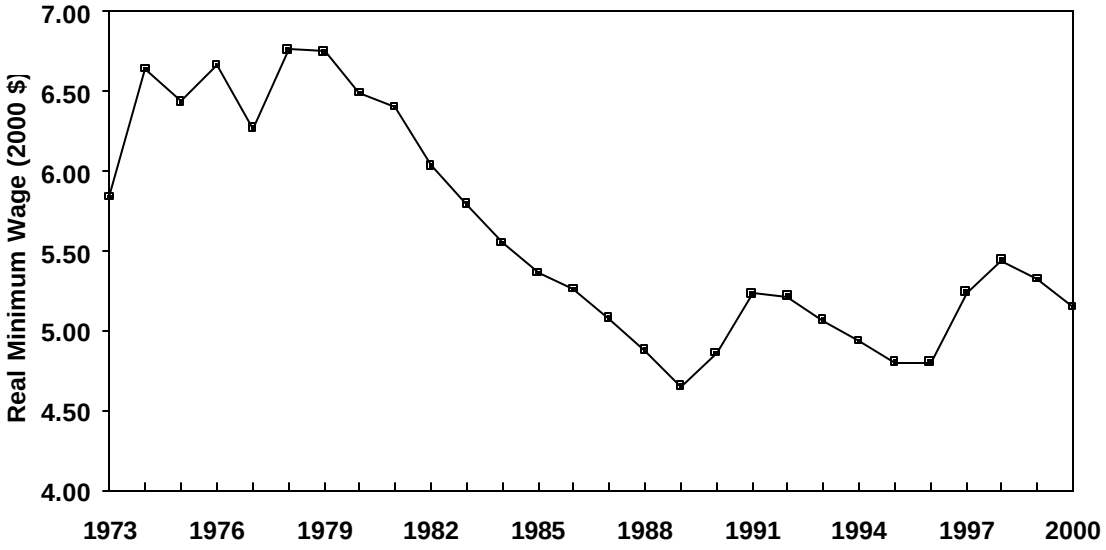
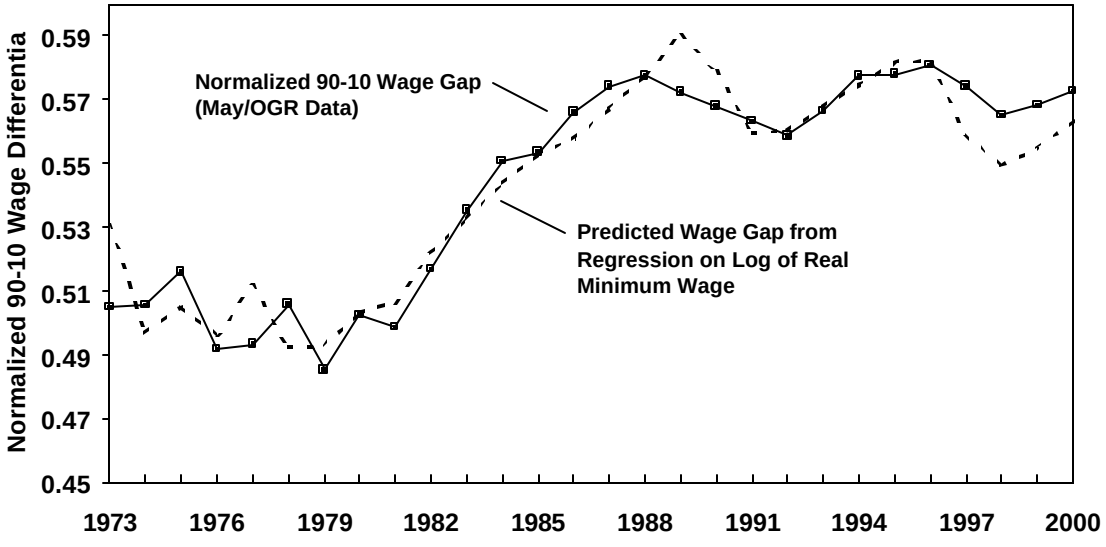
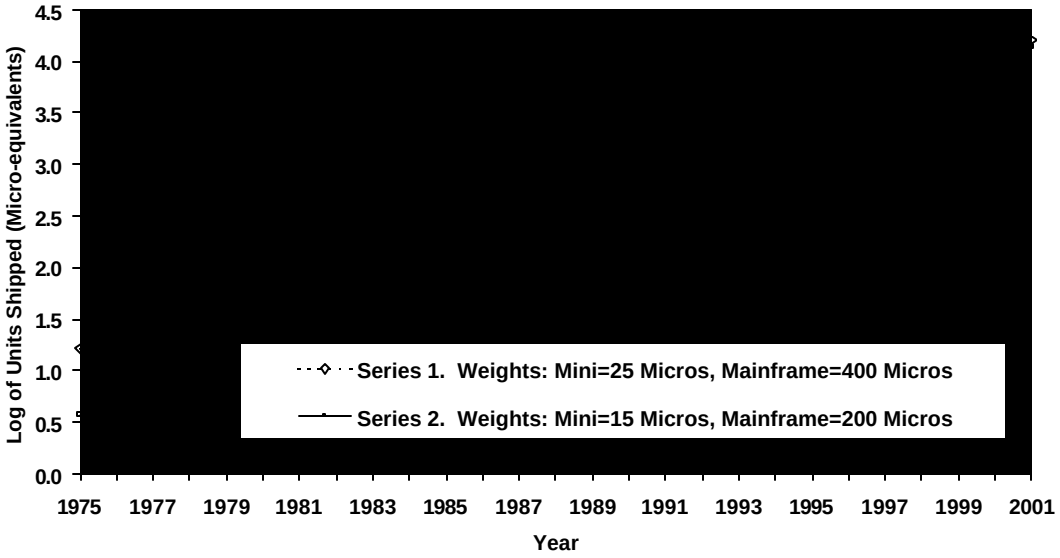


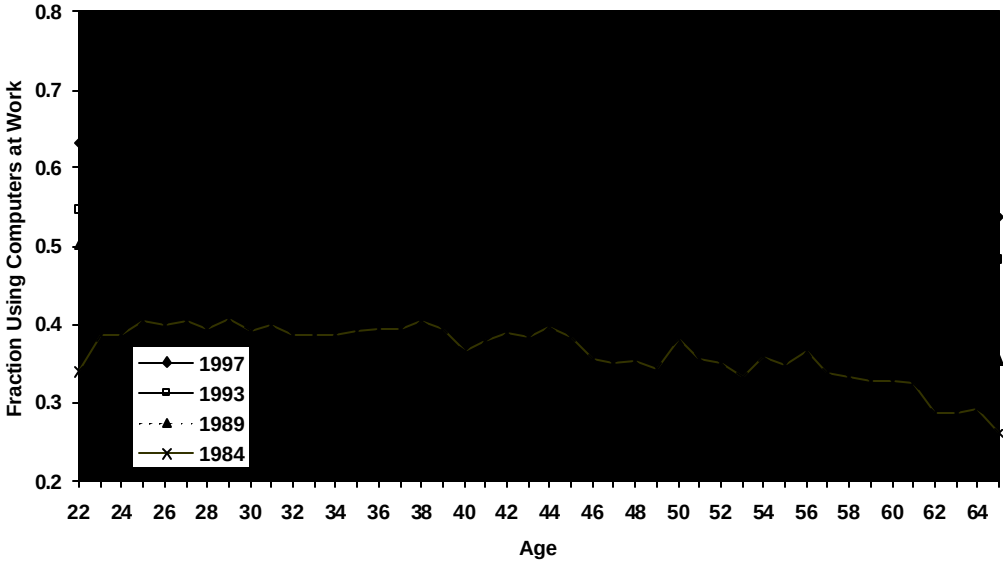
Figure 23: Wage Inequality and the Minimum Wage



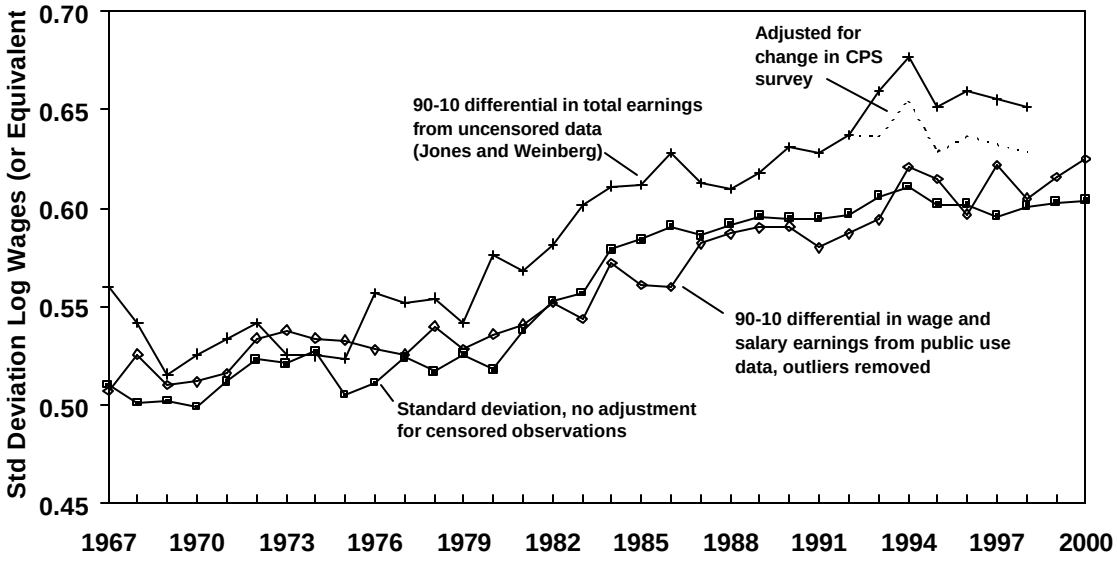
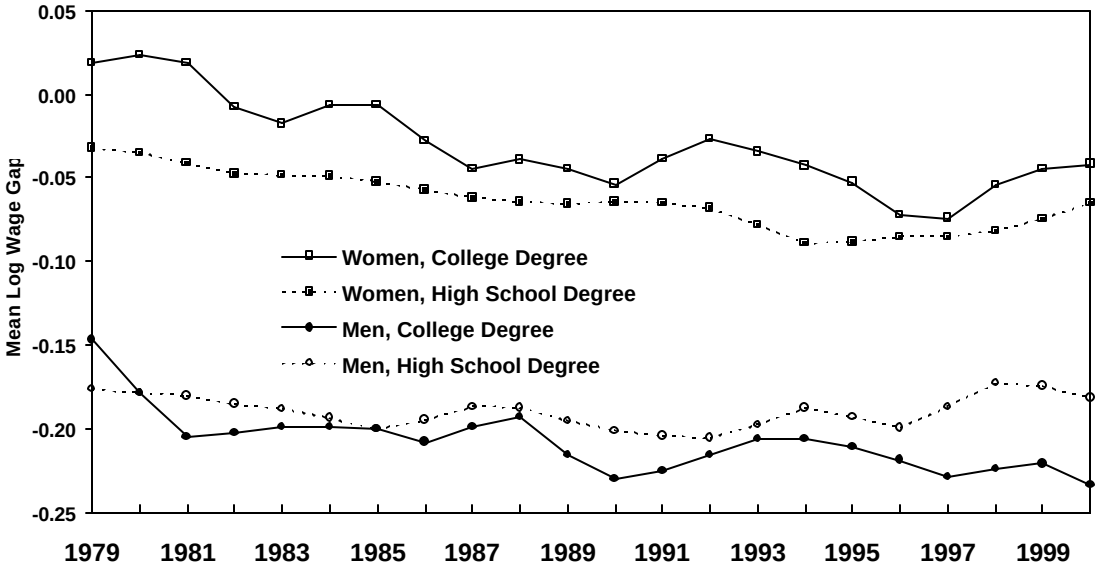
Appendix Figure 1: Annual Shipments of Computers



Appendix Figure 2: Age Profiles of Computer Use on the Job



Appendix Figure 3: Alternative Measures of Wage Inequality for FTFY Men



Appendix Figure 4: Black-White Wage Gaps by Gender and Education